

Fractionated stereotactic radiotherapy reduces vision loss in optic nerve sheath meningiomas

3 November 2009

Optic nerve sheath meningiomas are rare tumors that are traditionally treated with surgery, which is typically a blinding procedure. However, researchers from Thomas Jefferson University Hospital have found that a specialized type of radiation therapy offers the same local control, with fewer adverse effects on vision. The investigators presented their data at the 51st ASTRO Annual Meeting (Abstract #2676/B-261).

Fractionated stereotactic radiotherapy is a more precise, targeted type of [radiation therapy](#) that allows an effective dose of radiation to tumor, but helps spare other structures around it. In the case of optic nerve sheath meningiomas, the eye lens and brain cells are spared, according to Robert Den, M.D., a resident in [Radiation Oncology](#) at Thomas Jefferson University Hospital.

"Fractionated stereotactic radiotherapy is beneficial because it is a non-invasive means to achieve disease control, while allowing patients to continue with their daily lives without being hindered by a major surgical procedure," Dr. Den said.

Dr. Den and colleagues conducted a [retrospective analysis](#) of 58 patients with optic nerve sheath meningiomas who were treated with fractionated stereotactic radiotherapy between 1996 and 2006. They reviewed patient charts for technical radiotherapy information and for treatment outcomes, which included local control, visual acuity and acute and late toxicity related to treatment. The median follow-up was 70 months.

Based on MRI, the radiographic local tumor control was more than 95%. Visual acuity was stabilized or improved in 92% of patients. Four patients had worsening vision. One patient developed optic neuritis and one developed central retinal venous occlusion. There were no grade-3 or higher late

complications.

"This was the largest U.S. cohort of patients with optic nerve sheath meningiomas treated with fractionated stereotactic radiotherapy," said Dr. Den. "There is no difference in outcome and the patients' quality of life was much better. This should be the standard of care for patients with optic nerve sheath meningiomas."

Source: Thomas Jefferson University ([news](#) : [web](#))

APA citation: Fractionated stereotactic radiotherapy reduces vision loss in optic nerve sheath meningiomas (2009, November 3) retrieved 24 September 2022 from <https://medicalxpress.com/news/2009-11-fractionated-stereotactic-radiotherapy-vision-loss.html>

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